## STATEMENT OF THE CLAIMS

1. (previously presented) A method for remote real time oil field management, comprising:
   a) installing at least one sensor in an oil field;
   b) coupling the at least one sensor to a CPU memory located at the oil field;
   c) programming the CPU to collect and store data from the at least one sensor;
   d) programming the CPU to at least partially analyze the data; and
   e) providing remote access to the data, wherein:
   said step of programming the CPU to at least partially analyze the data includes programming the CPU to determine covariance of the data.

2. (previously presented) A method according to claim 1, further comprising:
   f) providing remote access to the at least partial analysis via the Worldwide Web.

3. (original) A method according to claim 2, wherein:
   said step of programming the CPU to at least partially analyze the data includes programming the CPU to determine whether data falls outside programmed bounds.

4. (original) A method according to claim 2, wherein:
   said step of programming the CPU to at least partially analyze the data includes programming the CPU to determine whether the data is following a trend.

5. (original) A method according to claim 2, wherein:
   said step of programming the CPU to at least partially analyze the data includes programming the CPU to determine whether a function of the data falls outside programmed limits.

6. (original) A method according to claim 2, wherein:
   said step of programming the CPU to at least partially analyze the data includes programming the CPU to apply a correlation function.

7. (canceled)

8. (previously presented) A method for remote real time oil field management, comprising:
   a) installing at least one sensor in an oil field;
   b) coupling the at least one sensor to a CPU with memory located at the oil field;
   c) programming the CPU to collect and store data from the at least one sensor;
   d) programming the CPU to at least partially analyze the data;
   e) providing remote access to the data; and
   f) programming the CPU to determine whether results of the at least partial analysis correspond to an anomaly, wherein said anomaly is a parameter going out of bounds within a predetermined interval.

9. (previously presented) A method according to claim 8, further comprising:
   g) programming the CPU to automatically notify one or more persons if the results of the at least partial analysis corresponds to an anomaly, wherein
   said step automatically notifying includes one of sending electronic mail, calling a pager, calling a telephone number, activating an alarm, broadcasting an RF signal, transmitting a signal to a satellite, transmitting a microwave signal, sending a signal via a LAN, or sending a signal via a WAN.

10. (canceled)

11. (previously presented) A method according to claim 1, further comprising:
   coupling the CPU to a separate Web server.

12. (original) A method according to claim 1, wherein:
   said step of programming the CPU to store data includes programming the CPU to compress data.

13. (previously presented) A method for remote real time oil field management, comprising:
   a) installing at least one sensor in an oil field;
   b) coupling the at least one sensor to a CPU with memory located at the oil field;
   c) programming the CPU to collect and store data from the at least one sensor; and
   d) providing remote access to the data, wherein

said step of programming the CPU to store data includes programming the CPU to decimate based on age of the data.

14. (original) A method according to claim 13, wherein:
older data is decimated at a higher proportion than newer data.

15. (previously presented) An apparatus for remote real time oil field management, comprising:
a) at lease one sensor installed in an oil field;
b) at least one CPU with memory located at the oil field coupled to said at least one sensor, said at least one CPU being programmed to collect data from said at least one sensor and store the date in said memory; and
c) communications means for coupling said CPU to a communications network, wherein said CPU is programmed to determine covariance of the data.

16. (previously presented) An apparatus according to claim 15, wherein:
said CPU is programmed to at least partially analyze the data; and
said communications network includes the Worldwide Web.

17. (original) An apparatus according to claim 15, wherein:
said CPU is programmed to determine whether data falls outside programmed bounds.

18. (original) An apparatus according to claim 15, wherein:
said CPU is programmed to determine whether the data is following a trend.

19. (original) An apparatus according to claim 15, wherein:
said CPU is programmed to determine whether a function of the data falls outside programmed limits.

20. (original) An apparatus according to claim 15, wherein:
said CPU is programmed to apply a correlation function to the data.

21. (canceled)

22. (previously presented) An apparatus for remote real time oil field management, comprising:
    a) at least one sensor installed in an oil field;
    b) at least one CPU with memory located at the oil field coupled to said at least one sensor, said at least one CPU being programmed to collect data from said at least one sensor and store the data in said memory; and
    c) communications means for coupling said CPU to a communications network, wherein said CPU is programmed to at least partially analyze the data, said CPU is programmed to determine whether results of the at least partial analysis correspond to an anomaly and said anomaly is a parameter going out of bounds within a predetermined interval.

23. (previously presented) An apparatus according to claim 22, further comprising:
    d) means for automatically notifying one or more persons when the CPU determines that the results of the at least partial analysis correspond to an anomaly.

24. (original) An apparatus according to claim 23, wherein:
    said means for automatically notifying is selected from the group consisting of means for sending electronic mail, means for calling a pager, means for calling a telephone number, means for activating an alarm, means for broadcasting an RF signal, means for transmitting a signal to a satellite, means for transmitting a microwave signal, means for sending a signal via a LAN, and means for sending a signal via a WAN.

25. (canceled)

26. (currently amended) An apparatus according to claim 15, further comprising:
    d) a separate Web server coupled to said CPU.

27. (previously presented) An apparatus according to claim 15, further comprising:
    d) data compression means for compressing data stored by said CPU.

28. (previously presented) An apparatus for remote real time oil field management, comprising:
    a) at least one sensor installed in an oil field;
    b) at least one CPU with memory located at the oil field coupled to said at least one sensor, said at least one CPU being programmed to collect data from said at least one sensor and store the data in said memory;

c) communications means for coupling said CPU to a communications network; and

d) data compression means for compressing data stored by said CPU, wherein said data compression means includes means for decimating data based on age of the data.

29. (previously presented) A method, comprising:

a) installing at least one sensor in an oil field;

b) coupling the at least one sensor to a CPU with memory located at the oil field;

c) programming the CPU to collect and store data from the at least one sensor;

d) providing remote access to the data;

e) programming the CPU to at least partially analyze the data; and

f) programming the CPU to apply a correlation function, wherein said step of programming the CPU to apply a correlation function includes programming the CPU to

i. let active wells produce or inject with a nearly constant rate; and

ii. perform a periodic flowrate pulsing of the wells in a manner whereby the active wells are not pulsed at the same time or with the same amplitude.

30. (previously presented) A method according to claim 29, further comprising:

said step of programming the CPU to apply a correlation function includes programming the CPU to measure pressure response in passive wells while pulsing in the active wells.

31. (original) A method according to claim 30, further comprising:

said step of programming the CPU to apply a correlation function includes programming the CPU to differentiate the pressure responses.

32. (original) A method according to claim 31, further comprising:

said step of programming the CPU to apply a correlation function includes programming the CPU to differentiate the flow rates.

33. (original) A method according to claim 32, further comprising:

said step of programming the CPU to apply a correlation function includes programming the CPU to cross correlate differentiated data.

34. (original) A method according to claim 33, further comprising:

said step of programming the CPU to apply a correlation function includes programming the CPU to determine a discernible peak in the cross correlated differentiated data.

35. (original) A method according to claim 34, further comprising:

said step of programming the CPU to apply a correlation function includes programming the CPU to convert the data value at the peak to mobility.